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AN EDUCATION FOR ACTIVE LIFE.

Have we not here, the title of, to some extent, an unsolved problem? It is pretty generally conceded, we suppose, that the old classical curriculum of our colleges does not furnish a solution. As little, we think, does the scientific course of a Polytechnic school, based, as it necessarily must be, so largely upon mathematics as to be quite too one-sided and technical to answer the general purposes of young men not intending to devote themselves to scientific pursuits.

We have heard it gravely maintained that there *can* be no education that deserves to be called liberal, save one based mainly either upon philology, and embracing the ancient languages, or one based mainly on mathematics, and carrying its pupils very far into their abstruser recesses. It is sometimes assumed that when an education, different from either of these is sought, it is for the sake of avoiding labor and gaining the name of an education without paying the price of hard and persevering study. We are pointed to the so-called "Business Colleges," as the type of what education will be reduced to, if we "emasculate" it by leaving out that only which constitutes its disciplinary value — a hard training either in philology or mathematics.

We believe we are ready to go as far as any one in upholding

the necessity of the "disciplinary" element in all true culture. We abominate the notions of that vulgar type of the practical man who can see no use in anything that cannot be immediately reduced to a bread-and-butter value. It is an abuse of terms to call such men practical. Nothing truly valuable, even of the kind they can appreciate, will ever be accomplished by thus narrowing and belittling the sphere of education. But while we hope we thoroughly appreciate the value of mental discipline, we think that classical scholars on the one hand, and mathematicians and physicists on the other, are very much disposed to look upon their own as the only possible avenues for attaining it. Is it true that every study outside the pale of philology or mathematics, must, of necessity, be shallow and superficial? Has a young man who, not looking to the future either of a learned profession on the one hand, or a technical scientific pursuit on the other, no alternative but to borrow the training of the one or the other, though he knows he is never going to use it? Suppose him to have a positive inaptitude for mathematics — must he be thrown into the arms of a Greek professor, or go sadly through life without any higher education? Suppose him to have no sort of fondness for Greek vocables — *must* he study the Calculus, or fall back on a "Commercial Academy"?

This is a very vital and a very practical question for an increasing number of young men in this our active American world. Shall they accept one of these perhaps equally distasteful alternatives, or shall they go without any higher education beyond what a school can give them; or is there a *tertium quid* which is equally entitled to be considered a disciplinary and liberalizing mental training? We have said that the problem is an unsolved one. We know of no recognized and successful course of higher study, distinct on the one hand from the classical course of our colleges, and on the other, from the mathematical and physical course of our polytechnic schools; but we are very sure that such a course is possible, and we trust it will not be long before it will somewhere or other be realized. Practically, indeed, the course of study of many of our colleges is made to conform more and more to the real wants of the pupils by partaking more and more of this character.

History, Political Economy and other English studies — even the English and Anglo-Saxon languages — on the one hand; modern languages and the natural sciences on the other, are disputing with more and more success the time-honored monopoly of the classics *inside the college doors*. The practical difficulty consists in the tremendous price to be paid in order to get inside those doors, in the devotion of four to six of the best years of boyhood to the technical mastery of Greek and Latin. In polytechnic and scientific schools, on the other hand, the natural and almost unavoidable tendency is to give too great a preponderance to that strictly mathematical course without which as a foundation no successful progress can ever be made in the higher branches of physical science and the arts appertaining to them.

Now it would be absurd to attempt to construct any course of education that should deserve to be called liberal without the admission both of philology and mathematics as essential and fundamental ingredients. The only questions are, Are they the *only* possible ingredients, and if not, to what extent should they be displaced by, or in what proportion should they be mingled with, other studies? A mixture of ingredients that would suit exactly one class of minds and answer perfectly for the attainment of one practical purpose may be wholly unsuited to another class of minds or a different object; and though it is of course quite impossible to meet all the varying shades of mental character by corresponding variations in mental training, and undesirable if it were possible (though we think that in our ordinary methods we do not consult these natural differences and aptitudes enough); yet there are certain broad lines which the future careers of men mark out and for which it is possible to provide even in their early training.

Now, the divine, the lawyer, the scholar by profession, should early begin and thoroughly study philology as a mental training. The scientific engineer, whether civil or military, the architect and the builder, must begin early and carry very far a most thorough mathematical training. The chemist and the naturalist must cultivate his observing powers from his youth upward, and study early and late the philosophy of induction. To these last *we* would add the medical man, for we believe it would benefit him far more than

Greek grammars; and perhaps the reason why medical science makes so little progress, and is a prey to all manner of quackeries is, that it is but just beginning to emancipate itself from mediæval superstitions, and place itself where it belongs among the sciences of observation and induction.

But now comes the great army of youths — and in this young country of ours what an army it is! — destined for none of these callings, but who are to enter the various walks of business, and who desire before plunging into the whirl of active life to give themselves a *real* education. Is it absolutely necessary that they should be forced on the one hand to read the Greek tragedians, or on the other, to penetrate (hard fate!) the mysteries of the Integral Calculus, or else be handed over to the classic shades of a “business college”?\* We think not; but that a higher education may be devised for them too. Let us try to give some hints — and they can only be hints — in regard to the elements that should go to make up such an education.

Certainly they should study language; but to study language is not necessarily to study Greek. Cannot a thorough *discipline* in language be obtained from the study of the mother-tongue — with more or less (we should incline to the side of the *more*) of Latin and Anglo-Saxon along with the *thorough* study of one or more modern languages of the same family? Cannot the pupil's æsthetic taste then be cultivated by carrying this study into the classic writings of his own and other modern languages as carefully and thoroughly as the classical scholar pursues the same studies? Will not Shakspeare do instead of Æschylus, and Dante stand instead of Homer, and Spenser and Ariosto take the place of Virgil?

So, again, such young men should study mathematics — who can doubt it? — and study them with that thoroughness which is absolutely necessary in order to get from them their disciplinary value: would that such thoroughness were more common! But *how far* should they go? The field of mathematical investigation is bound-

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\* We desire to speak with great respect of “business colleges.” They are useful institutions, and many of them are admirably managed — but we are here speaking of Education.



less, and it is clearly a minority, and not a majority, of human minds that are capable of pursuing its higher walks successfully. For practical purposes the future merchant will never need the calculus; unless, indeed, modern fortunes are to be classed under "indeterminate forms" and "independent variables," but we fear no calculus has yet been devised to estimate *their* fluctuations. Let our young business man then stop short of these mysteries:—this need not imply that he is to be superficial in what he does learn,—and give up the vain attempt to force his mind upon paths which nature never meant it to tread successfully. So, again, if we apprehend the matter rightly, a minimum course in physics and in chemistry can well be laid out corresponding to this limited mathematical training, which shall yet give its recipient most excellent discipline of his observing and reasoning powers, and make him master far beyond the point now generally attained, of the great facts of physical science, and of the philosophy of induction in which they are a training.

But now come in certain other studies quite necessary to be attended to by our practical man, and which, *rightly* attended to, may be made to have a disciplinary value as truly as any of those we have enumerated. In truth it is a mere superstition to suppose that any studies have a monopoly of disciplinary value. The disciplinary value of a study consists not so much in the nature of the study itself as in the manner in which that study is pursued; and viewed in this light, *all* studies may be disciplinary, or the very reverse of disciplinary. To what percentage of the students in our colleges have the higher mathematics any mental value, as the study of them is usually pursued? On the other hand, though History may be made a mere concatenation of lifeless events, can it not be studied so as to bring into action a great many of the students' best powers? Do not mental and moral philosophy furnish a training which can be followed quite independent of that knowledge of classic verbal niceties which is so apt to make word-mongers and hair-splitters, and men of barren formulæ, instead of thinkers? Again, does it not behove the young citizens of a free republic to begin betimes the philosophic study of those laws they are to live under and help make, or shall we always be left a prey to the

sophistries of legal demagogues? Will any one undertake to say that in the study of law, rightly pursued, there is no mental training? or that all the law must of necessity be confined within the walls of a few technical law-schools? In our view, the more widely a sound knowledge of its principles is spread as a part of a general education, the less need there will be of multiplying those law-schools and all the endless technicalities on which they depend for their existence.

And finally, and more important to the business man than all the rest, why should not the laws of his very business be made to yield a discipline to his mind? Is not political economy a recognized and a difficult science? Has not trade its laws? and in the multitude of products with which the merchant deals, in their nature, the laws which govern their production, and the processes which enter into their preparation, for the uses of man, is there not a boundless field for the highest exercise of the mental faculties, and for an education which is all the more valuable for not stopping when the doors of the college are left behind, but for furnishing the materials for a mental discipline which need end only with life? If we would relieve trade from the reproach which now attaches to it of being pursued only for low and mercenary ends, we must raise up a generation of *educated merchants* — of men educated not *from* but *for* their profession, who will not look down upon their own calling, but will compel others to look up to it, through the liberal and enlightened spirit in which they pursue it, and the proof they give that its pursuit is consistent with, and may be made a true element in a really *liberal* culture.

We have left ourselves no room to speak of art, and its claims to be considered an integral element in *all* liberal training. We can only say that we see no inconsistency in a study of the fine arts being made a part of the education for the most practical of practical pursuits. Indeed, such an ingredient is needed there more than anywhere else, to give balance and proportion.

We have thrown out these hints on a wide and very important subject. We wish some abler pen than ours would pursue it farther. — [ED.]

## EXPERIENCES.

## CONCLUDED.

In arithmetic I have endeavored to lead my little pupils gradually from one idea to another, giving them all sorts of general lessons with beans, sticks, &c., and at the same time letting them express numbers by figures on the blackboard, and giving them the plus and minus signs from the very beginning, to express the operations they performed with objects. At last, when they could read more, and I thought they began to tire of these lessons and would do better with a book, I took the little North American that you and I learned when we went to Miss J——'s school in Cambridge, 30 years ago, do you remember? Well, it is n't much of a book, but it was at hand, and it answered my purpose very well, and the children liked having a book. I don't think I quite believe in the modern theory of oral teaching wholly without books. Books without the oral are dead weight, letter without spirit, but the oral without the books is, I think, in danger of being too impalpable, unimpressive, easily forgotten — spirit merely without the letter to embody it. I may be wrong, but that is my fancy, and I give it you.\*

The children read the little arithmetic through to me, and recited the tables, directly after they had read them. They never made a point of learning them for permanent retention; I did not wish them to do so. While they were doing this, I took Dana P. Colburn's Intellectual Arithmetic, Part 1st, and went through it with them, reading the examples of one section, each day, after the other lesson, and letting them compose and bring in to the recitation similar ones of their own. This they liked very much. They finished the two books at the same time at the end of the school year. This year I gave each a copy of D. P. Colburn's 2d Part, and we are going very slowly through it. Sometimes they read the examples themselves from the book, sometimes I read them aloud, and they keep their books closed; for I hardly use the same method of recitation two days in succession. You may see

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\* Quite right, we think. — [ED.]

how slowly we go on, from the fact that now, at nearly the end of the second term, we are but just beginning Written Arithmetic. I cannot claim any great quickness for my children in Arithmetic, but I believe they take a thoroughly *common sense* view of all that they have gone over, and I consider common sense the very most important idea to form the foundation of children's arithmetical knowledge. There is nothing more fatal, I think, than that arbitrary routine of rules and methods so common in the teaching of this subject. You will, perhaps, be surprised to hear that they have not yet learned the multiplication table, and perhaps I ought to have given it sooner, yet I hardly think I am wrong in waiting. They can count by twos and threes, fours, fives and sixes, up to 60, and they know that four threes make twelve, six fours twenty-four, etc., and I think they will come to the table so gradually and intelligently that they will be saved some of its common difficulties.

Of course they knew nothing of geography, and in this study I consider myself extremely fortunate in seeing, almost at the beginning, when I had only given them a few general oral lessons, a notice, in the *Christian Examiner*, I believe, of "Our World," by Miss Mary L. Hall, which induced me to get the book. Get it yourself, and see what I was saved in not entering stupidly, according to precedents, on the dreary, barren, dry altitudes of Cornell's Primary, or any other of those books devised to turn the study of this rich and varied and most interesting world of ours into a mere collection of lists of unmeaning names and unintelligible definitions. I heard a young teacher say lately that if she ever taught a primary school again, she should take an "Our World," at her own expense, to teach from, if the committee would not give her one, rather than be doomed to a Cornell, or any other primary geography. If you could see the animated little faces that drink in eagerly the lessons she gives, you would think so too. I believe there is soon to be a new and improved edition of Miss Hall's book, and I am impatient to get it. I read it, or rather talked it, to my class; for one cannot read straight along to children as to adults—the eye, the animated and animating look, the frequent question and exclamation must constantly break the narrative, and excite attention and response. When we had gone through the



first part, and part of the second, I began to feel the need of books for them too, on the principle I mentioned above, and though I had outline mural maps and a globe, I thought they would like also to have each a map to look at and search for places. So I got a primary geography by Fordyce Allen, on the object-lesson principle, a little book, on a better plan than the Cornells and the rest, but I think rather poorly executed. Still the maps answered my purpose pretty well, and the children liked having them before them while I read Miss Hall's delightful descriptions. I finished "Our World," with the year, and we are now going regularly through Allen, and have just done with South America. I notice on the next page a singular and I think a fatal error, the direction not to tell children that the earth is round. I think this a grave mistake, as I am sure that the rotundity of the earth can be made perfectly intelligible to children, especially with the aid of a globe, and is, with its attendant phenomena, very interesting to them. Let me say here, that Munger's Slated Primary Globe is a capital thing and capable of being made very useful and interesting. I believe children generally like geography even in stupid Cornells, and mine are enthusiastically interested. I read them little tit bits of description, narratives of adventure, etc., in connection with the country they are learning about, but it is not easy to find many such things suitable to little children. Still there are a great many passages of this kind that children would never read themselves, which yet interest them extremely when read to them, and a little pains-taking research will undoubtedly open to me many treasures. I need not say to you that I never allow them to pass over the name of a place occurring in their reading lesson, or story books, or history, or anywhere else without looking it out on the map.

So much for the principal occupations of the last year and a half. Reading, writing, spelling, arithmetic, and geography,—these have been the principal food, but we have had numerous side dishes. I have had no school on Saturday, so I have made Wednesday the odd day to receive the extras that we had not time for on other days. Then came the poetry and the blank-book-writing, to which I have before referred; and after the first half of the morning had been spent in these, I used the time after

recess in various ways. For some time, we had an exercise in Geometry, though the children never heard this long word. I tried Dr. Hill's little book, which is certainly very admirable, but which failed with us, after the first few chapters, undoubtedly from my own fault. After that, I took some hints from Sheldon's Elementary Object Lessons on Form, and this last fall, I took two of Calkins's Charts, and we learned all the figures, drawing them all, and cutting the plane ones out of pasteboard. They learned something too of measuring short distances by the eye, and as much of square and circular measure as the chart suggests.

Last year, I read to them Rev. J. G. Wood's Common Objects of the Country, and they drew a good many of the animals, copying from an outline that I made upon the board. This winter, they have had a short daily lesson upon animals, given partly from Wilson's books and partly from other sources. And one term we read one division of Hooker's Child's Book of Nature, on Plants.

In drawing, we have done less than we should have done. We tried Dr. Rimmer's system last winter, but were not very successful. This year, we have done little or nothing, but I mean to begin regularly next term.

We sing every morning a hymn from the Common School Hymn Book, and we have from five to fifteen minutes of singing by note from the black-board every day. Gymnastics for about ten minutes, at the end of the first hour, without implements, only free movements of arms, legs, and body. They like this very much.

I believe now I have told you about everything except about the History of the United States, which I am reading to them half an hour three times a week, while they sew. They have their maps before them, too, and are very much interested, though they are very forgetful, and require constant questionings and reminders to keep them alive and up to the mark. I use Bonner's because I know of none better, but there may be some improvement on his.

I wonder how this account strikes you! Does it seem to you too much or too little, too varied or too common-place? Remember that I do not offer it as a model plan, but only as one that has actually been tried, and that has certainly succeeded with these children, who, not yet eight years old, are very happy in learning, constantly interested, bright, active minded, and intelligent.

You will see that object teaching, as a system, I do not try. I have studied it in all the books on the subject that I have been able to lay my hands on, but never have seen it in operation, and do not feel competent to carry it out, even if I were quite convinced that it would be better to do so. But while I consider it a wonderful improvement on the old stupidities in teaching little children, and while I am indebted to it for a great deal of light, and for a great many most valuable suggestions, I am not sure that it is not better for me to use it as I do, rather to modify and improve my own plans than to replace them with wholly new ones. I have taught so much that I should find it almost impossible, if left to my own guidance, to start upon an entirely new plan; but I do not teach the same subject twice in exactly the same manner, always learning, between one class and the next, some better way, and gaining some new light. Often as I have taught the Latin Grammar, I am, at this present time, going through it with some children of ten, in a method quite different from any I ever pursued before. So we live and learn, and, I am sure, we might as well not live as not learn.

A. B. W.

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### LATIN COMPOSITION.

In the great English Schools and Universities the practice of writing Latin and Greek verses is carried to an extent which would be deemed ridiculous if we attempted to carry it out in the curriculum of our schools and colleges. The readers of Sidney Smith and "Tom Brown" will call to mind at once the statements made by the distinguished divine as to the number of verses he had written during his life, and will recollect with what fearful mental toil Tom Brown and his friends ground out their daily batch of machine hexameters. But in spite of their care, a too frequent reference to "vulgar" books left behind by those who had finished their course, betrayed them into using, once too often, some well worn and threadbare line, and brought them to grief with the authorities.

That any blind worship will ever be paid to classical studies in this country is not at all probable. On the other hand, the danger

is, that in the hurry and bustle of American life, the classics will run the risk of being neglected and shoved aside by other studies which have a more direct bearing upon the immediate affairs of life. Scholars in public schools are apt to beg off, when they can, from the difficult studies, such as Geometry and Latin, and get leave to pursue Natural Philosophy or Chemistry, because these latter studies are more "interesting." How do they pursue them? They make a few precipitations and explosions, get a smattering of science, and collect a few score "facts" whose rattling in their brains confuses them into the belief that they are masters of the whole subject. They miss the salutary effect of thorough, persistent and enlightened training,\* they lose the *discipline* which at their years they so eminently need, and which the study of Latin and Greek is so well adapted to give, and instead of being able to speak, write, or think, logically and with precision upon any topic, they are the possessors merely of a few isolated facts, and have a most superficial acquaintance with a great many subjects.

There is a class of people in this country who claim to be advocates of classical learning, but who yet scorn what they are fond of calling "verbal niceties," and who regard versification in the dead languages as a mere waste of time. Our colleges too neglect this matter, offering, it may be, a prize for a Latin poem once a year, but systematically slighting prosody and versification during the terms. Yet, in spite of the firm opposition to what even those who oppose it admit is an elegant accomplishment, it seems worth while to consider for a moment whether in the reaction from the English system, we may not go too far. This question, viz: the claims of Latin Composition, we propose briefly to discuss.

Admitting, at the outset, a good knowledge of Latin and Greek to be a desirable acquisition, in gaining such knowledge three main points should receive the attention of the learner,—first, accuracy; second, elegance; and third, the mastering of an extensive vocabulary, and getting a wide acquaintance with authors.

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\* We hope our contributor does not mean to give this as the necessary and only possible style of teaching science in school. That it is a style quite too common we fear must be acknowledged; but we believe that, when properly taught, scientific studies will yield a discipline, to say the least, as valuable as that of the ancient languages.—[Ed.]



First, and before all else, the learner should be taught to be accurate, incapable of making a false quantity in pronunciation, or of committing an evident blunder in translating. This remark may seem somewhat superfluous, not to say self-evident; but we have reasons for thinking that there are classical teachers in responsible positions even in Massachusetts who could profit by it. We heard the other day of a classical teacher in a public school who told his scholars that, Latin and Greek being dead languages, it makes little difference how they are pronounced; and we were told, too, that the boys he addressed acquiesced very readily in his dictum.

No sneers about minute criticism and mere verbal niceties can disprove the axiom that no solid classical structure can be built without having for its foundation perfect accuracy, and habits of clear thinking. But an accurate scholar is not necessarily an elegant one. No one can become an elegant classicist unless his temperament is such as enables him, after the drudgery of learning grammatical rules and formulas is over, to sympathize with the spirit of the authors he reads, and put himself, as it were, in communion with the great minds of antiquity by an appreciation not merely of verbal subtleties, but of the delicate and refined shades of expression in which the classic languages abound. This appreciation of the recondite beauties of a language, the crowning triumph of a genuine classical education, cannot of course be created where it does not exist, even by the most persistent application, but when it is observed, it is an easy and pleasant task to foster and strengthen it. As regards a wide acquaintance with classical authors, the student in our schools and colleges may receive direction and advice, but the amount of his knowledge depends upon his own industry and application to study, and must, in a great measure, be acquired after he leaves school and university. The range of books he reads while studying under the supervision of teachers and professors, is necessarily limited, and little more can be done at school than to lay broad and strong the foundations on which to build in future years. How are these desirable results, namely, accuracy, elegance, and habits of clear and exact thinking to be acquired? The reply from some will be, perhaps, that experience has taught us the best means; namely, those usually employed in our schools, the study of the

grammar, followed by the study and close analysis of some of the best classical authors, as Virgil, Cicero, and Xenophon. With this, the usual curriculum, we have no fault to find, except that it is not extensive enough, and that too often it omits what we deem essential to a thorough knowledge of Latin and Greek, namely, a searching and careful drill in composition, both in prose and verse. We may say here, in parenthesis, that we are aware that a certain amount of prose composition is required in most schools, and that, in a few rare instances, the making of verses is inculcated, but we are writing for the average of classical schools.

Without going too deeply into the matter, we propose, in another number, to describe a method of conducting exercises in Latin prose composition, which we have successfully employed, without supposing it to be original with ourselves, and to defend, briefly, if we can, the claims which versification has upon our attention.

J. M. M., JR.

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### THE STUDY OF THE BEAUTIFUL.

What a pity it is when there is in every child's mind such an inborn love of the beautiful, that our school studies and school routine should so neglect its culture, and so limit things to mere practical realities! Do we not commit a great mistake when we make school-work such dull drudgery. Do we think, as we ought, that each one has an æsthetic, as well as an intellectual nature, that there is something in each one of us that mere intellect cannot satisfy, something that the flowers, the skies, God's pictures in earth and air, and man's strivings for the ideal as shown in pictures and statues, only have language for? Do we think how the study and the love of the beautiful in art and nature, cultivate and refine one; how tender and earnest they make him; how this culture cannot help expressing itself in motion, in gesture, in speech, in a thousand ways? There seems, too, to be a connection between this culture and moral and spiritual culture. For is not all beauty but the spiritual shining through the material? and so the nearer we get to the beautiful, the nearer do we approach, and the more fully we comprehend the spiritual, the divine.

If teachers could do more to interweave this study with other studies, how much more should we truly educate our scholars, making them such reverent lovers and students of the beautiful, that when they leave our schools they shall know something of the wonders and treasures of art and nature, shall have better things to think of than fashion and gossip, and shall not stray through art galleries for no other reason than because it is fashionable to be seen there.

Nearly all studies need the assistance of this one. It would take too long to describe how it could be made to help all, but the one study of geography seems to need it most, and to get it least. For what is Geography? The description of the Earth, the beautiful Earth, that our Father has given us for an heritage, with its glory of mountain and plain, and river and ocean.

"The sea broad-breasted, and the tranced lake,  
The rich arterial rivers, and the hills  
Which wave their woody tresses in the breeze,  
The snow-robed mountains circling earth  
As the white spirits God the Saviour's throne."

The quiet lakes, the grandeur of mountains, the charms of scenery, the beauty of skies, day-time and night-time, are only open pages whence the child is to learn this great study, provided you direct him rightly. Then in the description of countries and cities, how much of the beauty of art comes in. It almost seems wicked not to have children learn something of the great artists, those who speak down through the listening years in pictures, and songs, and statues; and of those poems, that might fill their souls with echoes of imperishable music. Some of the technicalities of Art might be learned as easily as the rudiments of their other studies, and would be, in after life, of as great value. We fill our houses with choice paintings, engravings, and statuary, but how very few understand their true significance; how few have knowledge even of the names of the great galleries of the old world, of the great master-pieces of past and modern artists! We read in books of travel of the great cathedrals of Europe, of choir and nave and transept, of different styles of architecture, of decorations of turret or spire. We read of paintings in oil or water colors, in fresco, in encaustic, in enamel, in mosaic; of the different styles and

schools of painting, of engravings, lithographs, etc. Shall these be unmeaning names, or shall we interest and teach our children of them, thus preparing them for a better appreciation of the works of Art? Children take such a delight in pictures, that it seems a shame to put them off with the coarse caricatures of the popular juvenile books. The picture-shops and free galleries of the cities are doing a great work for us in this way; but we are not all in cities, and even if we were, the children need an interpreter between them and Art,—one who shall cultivate in them an earnest love for works of Art, and not for these merely, but for all Beauty in Nature as well as Art. So shall all beautiful things speak to them, and give them somewhat of their divine influences. Nature and Art shall lead them, reverent and happy, to the Author and Giver of all Beauty, even Beauty itself. The mountains shall fill them by their royalty and grandeur with infinite aspirations,—with lofty thoughts of living. The little, clinging flower shall teach them gentleness and love, and the faithful, kindly trees, lessons of human brotherhood and sympathy. Pictures and statues, poems and songs, grand cathedrals, and all that is noble and beautiful, shall make them truer, holier, more patient and trustful, more generous and noble in life. “And the Beautiful having secured a place in the Intellect passes into immortality with it.” And they can never grow too old to appreciate Beauty, wherever and in whatever form they find it. So shall they

“ With a natural fitness draw  
All tones and shades of Beauty to their souls;  
Even as the rainbow-tinted shell, which lies  
Miles deep at bottom of the sea, hath all  
Colors of skies and flowers and gems and plumes.”

C.

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MEN want to educate everything (themselves excepted) which will certainly educate itself; and all the more earnestly the more certain the result is, without their education, as in walking, seeing, tasting, etc.; but for the sense of artistic beauty which peculiarly needs education schools are rarely built. — [*Jean Paul*.]



## VOCAL EXERCISES IN THE BOSTON PUBLIC SCHOOLS.

[The following article from our excellent cotemporary, *Dwight's Journal of Music*, giving an account of one of the most recent and best improvements in the Boston schools, will, we think, interest all our readers. It describes a new step in a department whose importance can hardly be exaggerated.]

In a former article, we began to give our impressions after a number of visits to some of the public schools of this city during the hours devoted to lessons in vocal music. We confined our description to the Primary Schools, giving a very brief and fragmentary sketch of what we had witnessed of one man's teaching (Mr. L. W. MASON) in each of the classes of the youngest scholars. The result was certainly in the highest degree encouraging. Here was a true method embodied in a live man, one who has the gift for teaching just this thing; one who not only completely engages the attentive interest of these young children in the rudiments of song and of notation, draws out their fresh and pleasant voices, makes them delight in unison and even concord, inspires them with a love of rhythm and of order, and so prepares them for further musical culture, or at least interest in music, as they grow older, but who enlists all their daily teachers as auxiliaries in this good work, inspiring the mistress in each school-room with his own method, so that she can conduct the exercise in the intervals between his visits. We stated that this method was already in successful operation in 185 out of the 250 primary schools.

But what we so imperfectly described was by no means all we witnessed. After following the technical lessons and the singing up to the highest primary stage, we remarked to the teacher, "So far, then, the whole course consists simply in teaching to sing simple songs and phrases by ear and by note. Is there nothing done to the direct end of forming the voice, of bringing out a good quality of tone?" "That," replied Mr. Mason, "is another man's department. A great deal *has* been done in that way, as I will show you, but we owe it to Mr. Munroe." Whereupon he

called upon the room-full of children to sing one more song. "Sing it first in the *baby tone*," the common drawling, listless, puny, primary-school tone; and so they did, pleased to mimic thus their own bad habits which they were learning to cast off. "Now sit up straight, every one, throw the shoulders back, expand the chest, and sing the song in good, round, *musical tone*;" and the order was obeyed with a will, sonorously, in a way to show that most young voices are capable of a good quality of sound, and that they had really been led to discriminate somewhat for themselves between good and bad in this respect.

It was the first that we had heard of Mr. MUNROE, and our inquiries about him and his teaching elicited such glowing statements, that we eagerly accepted an invitation to visit the Hancock Grammar School (a large and noble building, in whose various rooms some nine hundred girls are taught), and witness the famous "Vocal Gymnastics" as conducted by this gentleman, who had studied the system in Paris, and had been but recently employed to introduce the exercise, experimentally, in certain of the Boston schools. . . . .

Go with us, then, into the Hancock School. It is at the North End, and draws its pupils, mostly, not from families much favored in respect of ease or culture. At one end of a spacious upper hall, hung round with creditable specimens of the pupils' skill in drawing maps, landscapes, picturesque buildings, figures, there stood in rows some forty girls taken at random from the upper classes, confronted by the teacher. . . . .

His cheery, quickening address brought the young platoon all instantly to the *qui vive*; and the first exercises were in balancing and swaying this way and that, facing about, etc., all in unison, and rhythmically, with military precision, which was simply learning to *stand* well planted on the feet, erect, with freedom and *aplomb*. Then came a series of evolutions of the arms, describing curves so graceful, and executed with such unity, that we were reminded of the "Viennese Dancers," the object being to throw open the chest and give free play to the organs of respiration and tone. Respiration came next; drawing of deep full breath; breathing aloud; holding the breath out long; economy of the breath;

breathing upon a set key or pitch, and so suggesting something like the shadow of a tone; but the tone itself was kept back for some time yet, and only approached by slow degrees. At last the tone leaps out, a ringing, round, sonorous *Sol*; it was startling; one hardly hears a richer and more telling body of tone from a trained Italian Opera chorus, or from all the sopranis and contraltis of the Handel and Haydn. Then, to show the atoms that made up the aggregate, each voice was called upon in turn to utter the same tone separately. Great and curious were the differences indeed; each voice so individual in *timbre*, color, strength; some slender and feeble in comparison with others, yet all made so far true by this exercise that each enriched and did not mar the collective sound.

Other tones were tried in the same way, throughout the diatonic scale, and scarcely any voice fell out. Then came degrees of strength, *fortissimo*, *mezzo forte*, *piano*, *pianissimo*, &c.; then long holding out of the tone, swelling and diminishing; a more perfect, beautiful *crescendo* we have never heard in any choir of singers. Invaluable the habit thus formed of noticing and practising these distinctions, these gradations! Singing of simple strains, in unison, in two-part harmony, simple canons, catches, &c., followed. The application to the art of reading was then illustrated. One young lady read a passage of Milton's blank verse; at first, purposely, in the common thin and shallow "school girl tone," which excited a smile of course by its too much truth to actual life. On being asked now to read it in the "orotund voice," it came out in such large, sonorous, noble, Faneuil-Hall-like tones, that we could almost doubt the identity of the reader. Then this swelling *orotund* was subdued and toned down to what was called the "natural" tone, and this again contrasted with the nasal, the crying, the pinched, hard Yankee peculiarities of speech, which were plainly being exorcized by this process.

We need not recall the details of the exercise at greater length. Its character and tendency, we trust, are sufficiently apparent so far as description can serve; but it must be witnessed to be fully realized. Go to the schools and judge for yourself. This was but the tenth lesson these girls had received, and already such good fruits! We would we could describe the admirable manner, the tact, the

refinement, the kindly and inspiring way in which Mr. Munroe conducts the exercises; but this too must be seen to be appreciated.

We next accompanied him to a room in which all the female teachers of the district, twenty or thirty, were assembled for the same training, that they might severally teach it in their turn. This was even more interesting; for here the indoctrinator entered into lucid explanations of the physiology of the voice, illustrating by diagrams and on the black-board. And when it came to readings, he drew them into discussions and nice analyses of the meaning and spirit of various passages with reference to the fit and natural character of voice for each, an exercise full of mental stimulus, a cure for affectations, and showing very clear and subtle faculty in the teacher. So too in the "training school" (established in one of the comfortable old mansions in Somerset Street), where young ladies who have graduated from the Normal Schools are getting their first experience in teaching. These young teachers have their hours when they too are put through the same course of "vocal gymnastics," readings and criticisms. And in several primary school rooms we have seen the exercise conducted by the mistress, and the children very apt and happy under the new and wholesome dispensation. . . . We have left ourselves barely room to catalogue a few of the good results, immediate and prospective, from this two-fold exercise.

1. It makes the children happy, teaches them to know the pleasure of unity of movement, inclining them to rhythmical behavior and the instinct of order in all things—that order in which they feel the liveliest freedom—and helps to make the school hours the sunshiniest part of their day.

2. It gives them possession of their voices—not their voices possession of them—so that those ringing little organs become a source of pleasure rather than annoyance to those around them.

3. It gives them health, expands the chest, and lifts life up for all its tasks.

4. It loosens the soil, brushes away the obstacles, starts and nurtures such germs as there may be in each child of musical sensibility, perhaps of musical talent or even genius. Whole generations will grow up in a republic, loving music,—at least, not



dead to its influence; and what society in the world, so much as a young, great republic, with its harsh, utilitarian, selfish, and ambitious passions, needs the correcting, harmonizing influence of Art, especially of music, which is the most popular, the most ideal, universal, least material, and evermore believing, Art of Arts?

5. It is training up the voices to supply all our choirs and our great choruses. The churches and the oratorios will not have to seek far for singers. And patriotism, with these tuneful means, may easily improve upon the model which the Germans give us in their singing unions, which do so much to keep alive the soul of nationality and Fatherland.

6. It will work a revolution in our poor, pinched, hard, nasal Yankee utterance, which has grown proverbial. It will reform the national speech, tone, accent. The next generation will speak with full and hearty vowel sounds, with some graceful measured flow, something of the music of speech which we observe in most Europeans, and which has its moral as well as æsthetic advantages at the same time,—nay is in some sense a moral quality and not *mere* outside manner.

J. S. DWIGHT.

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Good reading is an art so difficult, so rare, that not one in a hundred educated persons is found to possess it to the satisfaction of others, although ninety-nine in a hundred would be offended were they told that they knew not how to read. . . . Among the requisites which are indispensable for attaining the highest possible perfection in this delightful art, we will mention the following qualities, which may be the gift of nature or the fruit of education:—rapidity of sight, by which the eye outstrips the voice, and embraces more words than the tongue utters; a voice pure, sonorous, and capable of varied modulation; clear utterance, great command over the respiratory function, and a flexible countenance; acute sensibility, lively sympathy and great powers of imitation; quick conception, vivid imagination, correct judgment and refined taste. In addition to these physical, moral and intellectual qualifications, the rare assemblage of which sufficiently shows the difficulty of the art, a reader should possess a thorough knowledge of grammar, prosody and rhetoric; should have a mind enriched with information to seize every allusion; should know the human heart to enter into every sentiment and give expression to it; should finally be able to vary his manner of delivery with every style and every subject. . . . But, we repeat it, the essential requisites, without which all others must prove unavailing, are perfect mastery of pronunciation, and the power of seizing instantaneously the sense and spirit of an author. — [*Marcel*].

## Editor's Department.

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### REPORT OF THE BOARD OF EDUCATION.

We have received a copy of this always welcome and always valuable document. From the report of the Board, we have already made some extracts. Want of space compels us to postpone, till our next Number, an abstract of the reports of our four flourishing and excellent Normal Schools. From the carefully compiled statistics, we here copy the following account of the schools:—

The number of public schools in Massachusetts is 4,749, being an increase for the year of 74: the number of persons between 5 and 15 years of age is 247,275, being an increase for the year of 5,631: the mean average attendance, .73 per cent., which is a *decrease* for the year of .01 per cent. The whole number of teachers employed is 7,367, of whom 1,072 are men, and 6,295 women, being a decrease of 138 men, and an increase of 153 women. The average length of the public schools is 7 months 17 days: the average wages per month, of men, (including High School Teachers,) \$54.77, being an increase for the year of \$7.99 — of women, \$21.82, being an increase of \$2.45. The diminished attendance in the schools may, perhaps, find a partial explanation in these rates of wages of the teachers. The average sum raised by taxes (including income of surplus revenue) for the education of each child, (exclusive of school buildings,) is \$7.23, being an increase for the year of \$0.85: the percentage of the valuation of 1865 appropriated to public education is one mill and seventy-seven hundredths (\$.001-77). The highest percentage of valuation appropriated to public schools is that of the town of TRURO, four mills and fifteen hundredths: then comes Somerville, (3-96), Chelsea and Warwick (3-63), and Pelham (3-55). The largest *sums* appropriated per head to public education are by the wealthy suburban town of Brookline, (\$20,384), which yet stands No. 291 out of 334 in the percentage list, and the little town of Nahant, (\$18.60), which is No. 46 on the percentage list.

The Report of the Secretary, Hon. JOSEPH WHITE, is rendered very valuable by a sketch of Massachusetts school legislation from the very commencement in colonial times, including the text of same of the earlier laws. We gather from it also, the surprising fact that, spite of the great pecuniary pressure brought upon all the inhabitants of the State by the exigencies of the war, the increase in the school appropriation during the first year was the usual average; and while, during the second year, there was a reduction, it was vastly more than made up by an increase during the third year, greater, with one exception, than had ever taken place before; and in the fourth by the unprecedented addition

of 16 per cent. in a single year. "Never before," says Mr. White, "have I discovered so deeply settled a conviction of the priceless value of our Public Schools; of their vital connection with all that is precious and dear in our social, political, and religious organizations, and such earnest exhortations to support them with a liberal hand. The grand lesson which the war of the rebellion has written upon the hearts of the people, with its iron hand and pen dipped in blood, and which everywhere finds expression, is that our schools must be maintained in a higher degree of efficiency than ever before, and at whatever cost; and that in them the coming generation must be taught that intelligent and lofty patriotism, and those Christian virtues, by which alone a people can exist under a free government." And Mr. NORTHROP, the indefatigable State Agent, after a year's labor, embracing 149 visits to 101 towns, addresses to 411 schools, and the delivery of 194 lectures, fully indorses the statement.

The usual abstract of the School Reports follows, covering 314 pages, and containing a great deal of valuable matter; and then follow DR. JACKSON'S carefully digested tabular statements. We think we can safely assert that no similar series of documents published in the United States contains more valuable matter than the twenty-nine volumes of Mass. Public School Reports.

#### HEALTH OF SCHOOL CHILDREN.

Our excellent cotemporary, the *Ohio Educational Monthly*, copies the rules of the Middlesex physicians from our last number, and gives in its adhesion to them with the following judicious criticism of the third:—

"We heartily accept each of these maxims, the third excepted, and we can indorse that, if first permitted to explain our vote—speaking after the manner of Congressmen. The reason assigned for this maxim by the learned physicians who adopt it, is, that adult scholars cannot bear more than seven hours of study, and that it is folly to suppose that immature minds in *growing* bodies can endure more. Now, as a matter of fact, the pupils in most of our schools do not study *three* hours a day—in many of our lower schools not to exceed *one* hour is given to actual study. The daily session of six hours is reduced by recesses and opening and closing exercises to about five hours; and even in our Grammar schools full one-half of this time is devoted to recitations and other exercises which afford a degree of mental and bodily relief. The fact that the schools are in session but five days each week, is also to be considered. If the other six maxims laid down by the Middlesex physicians are faithfully observed, we do not see why a moderate amount of home-study need be injurious to pupils who are twelve years of age and upwards. If, on the contrary, children breathe poison during the day and have neither physical exercise nor out-door plays, and consequently return home from school brain-weary, nervous, and, possibly, afflicted with headache, no home-study should be required.

"It is the manner and conditions of study, rather than study itself, that injures health. The testimony of statistics is conclusive, that proper study is conducive

to health and longevity. The duration of life among scholars and literary men, notwithstanding their general neglect of out-door exercise, is greater than among those not addicted to brain-work. Indeed it stands to reason, that as the body of man was made for the indwelling of an intelligent, rational soul, the development of that soul by study and investigation need not necessarily be a drain upon the vital powers and functions of the body.

"Let us see to it that the study of the pupils in our schools is of a kind adapted to their mental as well as bodily condition; let us avoid premature mental exertion, either by forcing the development of their minds beyond the growth of their bodies, or by cramming their memories with incomprehensible abstractions and generalizations; let us secure vigorous study when the brain is not in sympathy with an over-loaded stomach; let us reduce as much as possible the *fret* and *worry* which arise from an attempt to prepare lessons in half the time necessary for their mastery; let physical exercises and changes of posture be made to alternate with periods of study and recitations; let the pupils have *pure air* and cheerful and inspiring conditions of study — in a word, let the *laws of health* be observed in the management of our schools and the evil of over-study will largely disappear. Indeed it is my firm belief, that in the case of a majority of the pupils in our schools above twelve years of age, the absence of vigorous, earnest study is a more wide-spread evil than excessive study."

We think that the question of the proper length of school exercises and proper number of school hours will have to come up before long for examination, and that our customs in this matter will have to undergo some revision; but we heartily agree with our cotemporary that it is quite as often, perhaps oftener, the *kind* and character of school-study that creates difficulty, and lack of proper knowledge of the laws of health *at home* that produces illness, than any severity of tasks at school. Adults know well enough the difference between the effects of congenial and uncongenial work, between work done thoroughly and at ease, and work done under pressure; and yet they do not object to seeing children's feeble brains overtasked with dry and unsuitable abstractions, and applaud the application of the high-pressure stimulus of prizes and rigid technical examinations. We believe that Mr. White is right in regard to the absence of vigorous, earnest study; and while we think that in a great many cases a curtailment of the length of school time and number of school lessons *is* needed, we think there is quite as much need of change in the *quality* as in the quantity of school lessons.

The pressure of education falls with greater severity on some classes than on others. How the girls of the wealthier classes of our cities stand the effects of a fashionable training is to us a mystery; though indeed they do *not* stand it, as is made evident by slender figures, pale faces and early fading away. Three or four hours per day of practice or instruction in music; balls, concerts, and all the other distractions of society, turning night into day; and then the confinement and mental demands of school superadded, are enough to tax the strength of far robuster constitutions. It is a mistake to call these girls frivolous: they are far from it, and usually have an earnest desire to give their minds a real and true cultivation; but it is clear that in the midst of all this pressure something must



yield. That something is not apt to be the demands of society, and so either education, or too often health is the sacrifice. We have known of two cases of congestion of the brain this winter, in little girls, and we are told that insanity among the young is getting to be of not uncommon occurrence.

But in city and country much is to be done outside as well as inside the school-room before these evils will be remedied. We agree with our cotemporary in his conclusion that

"The sickly appearance and poor health of children are due largely to causes which lie outside of our school-rooms. Among these causes are a want of bodily exercise, unwholesome food, late hours, unventilated sleeping-rooms, insufficient and fashionable clothing, and unhealthy parents. No amount of physical training or sanitary discipline in our schools can be made a universal panacea for these evils. But let us see to it that the school-life of children does not aggravate them."

THE *N. Y. Nation* for April 5, has a dramatic scene, signed by the well-known initials of Prof. Lowell, entitled "Mr. Worsley's Nightmare." Mr. Worsley is one of the recent translators of Homer's *Iliad*, and has dedicated his version to Gen. R. E. Lee, "as the best living representative of its hero." The translator dreams himself in the lower regions, where he is introduced to Hector, and this is the reception he receives from the classic hero:

"Ah, here, then, I have you! come at last!  
My staff has been longing these three months past  
To measure the back of that dedicator  
Who likened me to the double traitor,  
False to his country, false to his oath;  
Me, who'd have given my life for both!  
Me, who no omens could understand  
But those that said, Fight for Fatherland!  
Achilles dragged but my dust in dust:  
You insult my soul without reason,  
Coupling my name with a broken trust,  
Dabbling my fame in the lees of treason.

Was his, then, your notion of the bravery  
That swells in deathless echoes of song?  
Forth from my presence, poor snob of slavery!  
Herd with the dull souls where you belong!  
Study the bible you call the Peerage;  
Get what salvation therefrom you can,  
Nor come near me lest I pay the arrearage  
Due to your ribs from an honest man."

THE NATIONAL TEACHERS' ASSOCIATION will hold its next meeting at Indianapolis, commencing on the fifteenth of August. This announcement is made now, in order that the various State Teachers' Associations may fix their times of meeting, with reference to it. Full programmes will be published in due time.

J. P. WICKERSHAM, President.

**SALARIES OF TEACHERS.** From a Memorial of the Officers of the U. S. Navy for an increase of their pay, with documents setting forth and sustaining the same, with a copy of which a naval friend has favored us—and certainly we do not see how a stronger case could well be made out than is here made by the brave men to whom we owe so much—we copy the following two tables, which we trust our readers who are upon school-committees will also ponder.

## NEW YORK CITY.

*Prices in 1861 compared with those of 1866.*

	1861.	1866.
Provisions, as . . . . .	\$1 00 . . .	\$2 10
Clothing, " . . . . .	1 00 . . .	2 00
Rents, " . . . . .	1 00 . . .	2 00
Board, " . . . . .	1 00 . . .	2 00
Professional Fees, (medical,) as . . . . .	1 00 . . .	2 00
Fuel, (coal,) as . . . . .	5 00 per ton.	11 00 per ton.
Taxes, . . . . .	1 25 . . .	3 50
Stationery, books and paper, . . . . .	1 00 . . .	2 25

## CITY OF BUFFALO, N.Y.

*Prices in 1861 compared with those of 1866.*

	1861.	1866.
Provisions as . . . . .	\$1 00 to	\$2 13
Clothing " . . . . .	1 00 to	2 00
Rents " . . . . .	1 00 to	1 75
Board " . . . . .	1 00 to	2 00
Fuel " . . . . .	1 00 to	2 50
Professional Fees as . . . . .	1 00 to	2 00
Taxes " . . . . .	1 25 to	3 00
Stationery, Books and Paper, . . . . .	1 00 to	1 75

The accuracy of these tables is vouched for by some of the most responsible merchants of the respective cities.

**AMERICAN COLLEGES.** The following is an extract from a letter from the eminent German chemist, Liebig, to the Secretary of the Ohio Agricultural Society:

"In America you spend too much money in putting up your educational buildings, and then starve your professors. I learn that you put up a very grand building in your city of Columbus, called the Starling Medical College. I have a picture of it. I am told that it cost some \$70,000 or \$75,000, and now you are starving the professors in it. You did the same in Cleveland and Cincinnati. Then, I am told, you built two universities in Ohio, and now the professors can hardly live on the salary you pay. The consequence is that these schools, colleges, or universities must run down. There is no place in the whole world where knowledge can make so much money as in America; therefore your best men will not become teachers or professors, simply because they can make more money out of something else; and they naturally apply their talent and ability where it pays the best. No man will engage in an educational course of life, for life, on a salary of \$1,200 or \$1,500 a year, when he, by applying the ability in some other pursuit, can make \$4,000 or \$5,000 a

year. Hence, you have no first-class professors in all America; but you have instead first-class business men, first-class mechanics, and managers of large and colossal establishments."

The extract contains a great deal too much truth. We certainly have first-class professors in America, but they are either men who, possessed of private fortunes, can afford to devote themselves to a favorite pursuit, or else men who are willing to sacrifice worldly prospects, in their enthusiastic devotion to science. In a country like ours this should not be, and young men with a strong passion for scientific pursuits — we have had the fortune to know such — should not be deterred from devoting their lives to them by the small prospect there is of earning even a competence, if they desert the beaten paths of money-making.

OUR excellent cotemporary, the *Pennsylvania School Journal*, has a little misunderstood our object in printing the account of the English "half-time system." We are well aware of the difference in situation which it points out between the children upon whom that experiment was tried and the children of our own public schools; and as a rule we do not believe in attempting the importation of foreign systems or new methods without the most careful regard being had to their adaptation to our own wants and circumstances. Still we did think it a most instructive fact, and one from which we can derive a valuable lesson, that of two sets of children similarly situated, that one was the most advanced in book-learning, and altogether the superior in intellectual ability, which had spent the least amount of time in school, the deficiency being more than made up, and their power of acquisition much more than doubled by the fact that along with their book-studies they had begun betimes to take part in labor, and in acquiring manual dexterity in mechanical operations requiring intelligence and skill. How this fact is to be applied to our use remains to be seen; but to our mind it does teach this lesson pretty plainly, that while school instruction continues to consist in book-learning alone, the children, as things are now, get too much of it. We are quite aware of the evil of turning them loose for a larger part of the day than they have now; we rather look to see the lesson utilized by its producing a different style of teaching in our schools, and a greater variety of exercises and studies, such as shall give greater freedom from mere lesson-learning, and shall be more favorable to bodily health. We see no reason, however, why in very many cases the example should not be followed literally, and classes of boys and girls should not alternate in some way to be provided for hereafter, between school attendance and the learning of a trade or of those household labors and duties, in a knowledge of which the rising generation of girls is likely to be so lamentably deficient. The subject is a very wide one, and leaves room for many interesting experiments.

MR. ISAAC N. CARLETON has withdrawn from Dr. Dio Lewis's school at Lexington, and, for the present, by invitation of Conn. Board of Education, will take charge of the State Normal School at New Britain.

## BOOK NOTICES.

AN ADDRESS ON THE LIMITS OF EDUCATION, Read before the Massachusetts Institute of Technology, Nov. 16, 1865, by Jacob Bigelow, M. D. Boston: E. P. Dutton & Co. 8vo., pp. 28.

AN OUTLINE OF A COURSE OF ARCHITECTURAL INSTRUCTION. By William R. Ware, Professor of Architecture in the School of the Massachusetts Institute of Technology. Printed for Private Distribution.

We are somewhat late in noticing these two discourses, and are all the more bound to express an earnest wish that they may be widely read by the friends of progress in education, and that the second may fall into the hands of many who are interested in the noble art of which it treats. The venerable author of the first-named discourse having published, more than a third of a century ago, a work on the subject of Technology, almost before the word had gained a foothold in the English language, now finds himself vice-president of an institution having the word for its title, at a time when it is recognized as "a great and commanding department of scientific study in every quarter of the civilized world." His review of the progress of science during the long intervening period is very lively and interesting, and his remarks on the effect of the growth of science in compelling the world to enlarge its views in regard to what constitutes an education seem to us eminently just. After recounting the wonderful progress of science, and pointing out that "the immense amount of knowledge, general and special, true and fictitious, salutary and detrimental, the record of which is already in existence, has grown into an insurmountable accumulation, a *terra incognita*, which from its very magnitude is inaccessible to the inquiring world," Dr. Bigelow goes on to say:

"It is not presumptuous to say that education to be useful must, as far as possible, be made simple, limited, practicable, acceptable to the learner, adapted to his character and wants, and brought home to his particular case by *subdivision* and *selection*.

"For precisely the same reason that it would not be profitable for experts in a mechanical vocation to distract and dissipate their attention among pursuits alien to their tastes and qualifications, it can hardly be advantageous for pupils and neophytes in learning, to undertake to make themselves competent representatives of the various sciences, the literary studies, the languages, dead and living, which are now professedly taught in our colleges and seminaries. Every individual is by nature comparatively qualified to succeed in one path of life, and comparatively disqualified to shine in another. The first step in education should be for the parties most interested, to study, and as far as possible to ascertain, the peculiar bent and capacity of a boy's mind. This being done, he should be put upon a course of intellectual and physical training corresponding, as far as possible, to that for which nature seems to have designed him. But in all cases a preparatory general elementary education, such as is furnished by our common schools, must be made a prerequisite even to qualify him to inquire. The more thorough this preparatory training is made, the better it is for the



student. But after this is completed a special or departmental course of studies should be selected, such as appears most likely to conduct him to his appropriate sphere of usefulness. Collateral studies of different kinds may always be allowed, but they should be subordinate and subsidiary, and need not interfere with the great objects of his especial education.

"A common college education now culminates in the student becoming what is called a master of arts. But this in a majority of instances means simply a master of nothing. It means that he has spent much time and some labor in besieging the many doors of the temple of knowledge, without effecting an entrance at any of them. In the practical life which he is about to follow he will often have occasion to lament, be he ever so exemplary and diligent, that he has wasted on subjects irrelevant to his vocation, both time and labor, which, had they been otherwise devoted, would have prepared and assisted him in the particular work he is called on to do.

"Young men, as well as their parents in their behalf, are justly ambitious of a collegiate education. Older men often regret that they have not had the opportunity to receive it when young. And this is because of the generally acknowledged fact, that four years, spent under the tuition of faithful, accomplished and gentlemanly teachers, can hardly fail to improve their character, language and bearing, as well as their store of useful knowledge. It is the habitual contact and guidance of superior minds, as well as the progressive attrition with each other, which make young men proficient in rectitude, in honor, in science, in polite literature, in tact, and in manners. And this result will appear, whether they have been taught French at West Point, or Greek in Harvard or Yale."

We think that Dr. Bigelow has well indicated in this passage the nature and true worth of the service done by a collegiate education. It is not in any mysterious value inhering in a training in dead languages, or transcendental mathematics that that service is contained, but in the "contact and guidance" of trained minds, and the discipline derived at that particular age when the mind is developing from puerile to manly proportions, from the thorough pursuit of *any* course of study in liberal arts and sciences. It is not, therefore, that the higher university and college training is useless, but that it should be enlarged and adapted to the new wants of the new age that the friends of reform in education plead. Self-education can never take the place of the training of the higher schools, though in the case of able men self-education may often be far better than a bad and unsuitable college training. It is with regret, therefore, that we find our author, a few pages afterwards, seeming to give the weight of his authority to the view too commonly held in this country of "self-made" men, that a higher training is useless to an able man, who *had better* be the architect of his own education as well as his own fortune. That the over-cultivated youths of cities are outstripped by the rude uncultivated force of country-bred men is no argument to prove that that rude force would not have been the better for a true and real training. On this point, Mr. Ware says very admirably and justly, "There can be no more mistaken or mischievous notion that

there is a natural conflict between men of natural force and genius, and men of education, unless, indeed, it is the notion, that, when they are brought into conflict, it is the self-trained man of genius who holds his own, and the man of education that goes to the wall. Our public life, indeed, sometimes exhibits its chief successes in the persons of men born and bred in the woods and wilds. But the art of administering government is with us, as yet, still in its infancy. Our political system is still primitive and crude; only its main principles have as yet been struck out; and only the simplest methods of availing of the natural forces at our disposal, so to speak, have as yet come into use. Our domestic relations, at least, are still in that state of development in which, in all the arts, a vigorous common sense and singleness of purpose are most efficient. Yet the impartial biographer of Jackson and of Clay finds ample cause to regret that the wisdom that comes from learning was not also theirs. It has not been found that genius for war has been able to manifest itself to any considerable extent, except under the favorable influences of a technical training. Instances of such transcendent natural powers as to overcome every disadvantage of education are, indeed, sometimes found in science, seldom in literature, in art almost never.

"A great deal is said about a self-sufficient and all-subduing nature, but the men of genius themselves are not deceived by it. They clamor for discipline, for training, for being taken in hand and put through all they should go through, for being taught all that it becomes them to know. An institution that can perform such service for such men is a great civilizing agent."

But in the main, and with these limitations we heartily agree with Dr. Bigelow in his notions of education; and we fear there is too much truth in the following criticism of our school system.

"The human intellect, though varying in capacity in different individuals, has its limits in all plans of enlargement by acquisition, and these limits cannot be transcended without aggregate deterioration in distracting the attention, overloading the memory or overworking the brain and sapping the foundations of health.

"The school system of New England is at the present moment our glory and our shame. We feel a just pride that among us education is accessible to all, because our public schools are open to the humblest persons. But in our zeal for general instruction, we sometimes forget that a majority of men and women must labor with their hands, that the world may not stand still, and that all may not lose by disuse the power to labor. We cannot train all our boys to be statesmen and divines, nor all our girls to be authors and lecturers, or even teachers. We ought not, therefore, to drive them into the false position of expecting to attain by extraordinary effort a place which neither nature nor circumstances have made possible. Many unfortunate children have been ruined for life, in body and mind, by being stimulated with various inducements to make exertions beyond their age and mental capacity. A feeble frame and a nervous temperament are the too sure consequences of a brain overworked in childhood. Slow progress, rather than rapid growth, tends to establish vigor, health and happiness.

It has always appeared to me that a desirable and profitable mode of school education would be one in which every hour of study should be offset by another hour of exercise required to be taken in the open air."

Of the details of Prof. Ware's excellent course of instruction, we have left ourselves no room to speak. It is broad, liberal, and comprehensive, and cannot fail if well carried out, to elevate the character of the profession in this country, and thus to give what we have but few of now, architectural works which shall be ornaments and not eye-sores. We need hardly point out the wide field that is opening to energetic young men possessed of the right aptitudes for this profession.

The discourse is printed, not published, but we presume it can readily be obtained by any person interested in the subject, by applying to the author.

**A TEXT-BOOK ON CHEMISTRY FOR THE USE OF SCHOOLS AND COLLEGES,**  
by Henry Draper, M.D., Professor Adjunct of Chemistry and Natural History  
in the University of New York, with more than 300 illustrations. New York :  
Harper & Bros. 12mo, pp. 507.

A critic, far more competent than we are to judge of the merits of this book, writes us as follows respecting it, and embraces in his criticism some considerations respecting the study which we think will be of interest to high-school teachers.

"The current text-books of Chemistry may be divided, as you know, into three classes:—the elaborate treatise, like the works of Graham or Regnault: the compact manual, like the excellent, but now somewhat antiquated book of Fownes; and the ordinary school-book like Silliman's, Youman's, and all that tribe. Prof. Draper's book belongs to the last class, and will be found to compare favorably with any of its competitors. It is written in a plain, simple, direct style, and is a good book of its kind. Whether this kind of book is not a trifle out of date is another question; certain it is that it ought to be. It is high time that Physics should be taught in our schools for its own sake, and not come in merely as a sort of appendage to a smattering of Chemistry. In my opinion the Chemistry had far better be left out altogether from the school course, and the Natural Philosophy taught by itself.

"In the work of Prof. Draper we have a continuation of the old fashion of opening with a disquisition upon certain physical properties of matter, a disquisition which runs through full one third of the book. All this, it is true, is knowledge which should be mastered by every student at some time; but its pertinence as the preface to a treatise on Chemistry is more than questionable. The tendency of the system is to dilute the physics to the lowest point, and then to bring the chemistry to the same level. My own opinion is that it is not wise to attempt to teach Chemistry in this manner. I believe it would be better to dwell upon the simpler physical conceptions during the school course, and leave the less tangible matters, like Chemistry, until the pupil is eighteen years of age or so. It will not require many years of experience in our scientific schools to determine whether I am right in this view. I have already had a tolerably large experience in the matter, and can say that at present, in the ordinary



laboratories all over the world there only two classes of pupils, first-rate and execrable, and that young first-rates are rare."

**SPENSERIAN KEY TO PRACTICAL PENMANSHIP.** New York: Ivison, Phinney, Blakeman & Co. 12mo, pp. 176.

A very elegant illustrated volume, got up in extremely good taste, and which contains, we should think, everything that can well be said on the useful art of penmanship. We like especially the chapters on the analysis of letters, and the pointing out of probable faults: for it is only by this minute attention to particulars that a bad handwriting can be changed to a good one. We do not hold to making everybody write alike: we prefer to see something characteristic about a handwriting, provided always it is not a characteristic illegibility; but nothing can be of greater importance than teaching young people a proper position and proper mode of holding the pen, and impressing on them the value of a good, clear, legible handwriting. The Spenserian style is flowing and elegant.

**THE LOST TALES OF MILETUS**, by the Right Hon. Sir Edward Bulwer Lytton, Bart, M. P. New York: Harper & Bros. 12mo, pp. 182.

We are not among the admirers of the Rt. Hon. E. B. Lytton, Bart. M. P. His reputation is great, but it is not one that will long survive its generation. A clever, versatile and unprincipled writer, he began with novels distinguished for a mixture of licentiousness, false sentiment and sham philosophy, and he has since tried his hand at almost every form of composition. He wrote a second-rate history of Greece, a fourth-rate epic poem, a volume of fairly good essays, made an unsuccessful attempt as a political orator, and now seems ambitious of adding new metres to English poetry, but we do not think he is likely to be successful when so many real poets, from Spenser down to Southey, have failed before him. What the lost tales of Miletus really were, can only be guessed at; it is much clearer that Sir Edward's imitations of them are a very mediocre performance.

**NARRATIVE OF AN EXPEDITION TO THE ZAMBEZI AND ITS TRIBUTARIES, AND THE DISCOVERY OF LAKES SHIRWA AND NYASSA, 1858-1864**, by David and Charles Livingstone: with a map and numerous illustrations, 8vo, pp. 66. \$5.

Here is another of those noble volumes of travel and exploration which form such a specialty in the Messrs. Harpers' catalogue. We can only repeat that it is the reading and digesting of such books as this that constitute the real study of geography; and we believe that a teacher will do better to give his class some lively oral lessons and readings out of such a book, always making them take notes, and in some way, orally or by writing, rearrange and reproduce these lessons, than to make them commit to memory the heights of all the mountains, and the lengths of all the rivers on the globe.

**THIS IS A WHITE WORKING-MAN'S GOVERNMENT.** Speech of Hon. J. W. Chanler, of New York.

A copy of this speech has been sent us under the frank of its author. We can only say that we cannot too strongly express our disapproval of its illiberal, undemocratic, and anti-republican sentiments, or of the pandering to vulgar prejudice indicated by its title.



**A CHILD'S HISTORY OF THE UNITED STATES**, Vol. 3, Part 2d. History of the Great Rebellion, with Illustrations, by John Bonner. New York: Harper & Bros. 16mo, pp. 366.

A little book which seems put together in a clever and lively manner, and which grown people will find useful to refresh their memories in regard to the sequence of the events which made up the great struggle. It is a neat little volume, and the wood-cuts are very good.

**WALTER GORING**. By Annie Thomas. Harper's Library of Select Novels; 75 cents.

We do not like the plot, but Miss Annie Thomas has a great deal of cleverness, and writes very readable and spirited dialogue. This novel is better than the average.

**THE TOILERS OF THE SEA**. By Victor Hugo.

Full of Victor Hugo's genius, if we are to believe the critics, and full, also, of his faults. The scene is laid in the little island of Guernsey, the author's place of exile and refuge.

**THE DAILY PUBLIC SCHOOL OF THE UNITED STATES**. Philadelphia: J. P. Lippincott & Co. 8vo, pp. 158.

We hope to give this pamphlet a more extended notice in our next number.

**THE NATIONALIST**, Vol. 1, No. 2. Mobile, Ala. In the year 1856, when we were temporarily acting as Editor of this Magazine, we received a returned number from a certain town in Alabama, with the following more emphatic than civil endorsement: "Keep your d—d abolition doctrines to yourself. Stop this if you please. Mr. W. has gone to parts unknown." Of "abolition doctrines," technically so called, there were none, but that particular number was entirely occupied with a report of the proceedings of the American Institute of Instruction. We bound the number, cover and all, into our volume, as a curious memento of our brief editorial career, and gratified, no doubt, our irate Southern friend by sending him one number more, in which we had printed, side by side, some statistics of Northern education and Southern ignorance. We little thought in those dark days that we should ever live to receive a paper from *Mobile* containing these noble sentiments in its prospectus: "The **NATIONALIST** will advocate the radicalism which requires equal and exact justice to all men, irrespective of color or nation. It will insist that freedom is the true normal condition of all men. . . . It will of course claim for the colored people, whose valor and loyalty have especially identified them with our vindicated nationality, and whose eagerness to avail themselves of the means of education which are now for the first time within their reach, and among whom there are already numbers possessing more intelligence than many white voters, the right to go to the polls with other men—that no restrictions should be placed upon them that are not equally applied to white men."

There is no longer need, thank Heaven! of coming to Massachusetts for "abolition doctrine." We bid the **NATIONALIST** God speed, and shall be happy to put it on our list of exchanges.

## PLYMOUTH COUNTY TEACHERS' ASSOCIATION.

The Thirty-third Semi-annual Meeting of this Association will be held at Hingham, on Friday and Saturday, June 8th and 9th.

The Exercises will be as follows:

## FRIDAY, JUNE 8th.

The Meeting will be organized for the transaction of business at 9 o'clock, A.M., after which there will be a discussion.

At 2 o'clock, P.M. a discussion.

At 3 o'clock, a Lecture by Rev. Joshua Young, of Hingham, to be followed by a discussion.

*Evening Session.*—At 8 o'clock, a Lecture by Rev. William Rice, of Springfield, Member of the Board of Education.

## SATURDAY, JUNE 9th.

At 9 o'clock, A.M., a discussion.

At 10 o'clock, a Lecture by Solon F. Whitney, Esq., Principal of the Watertown High School, to be followed by a discussion.

At 2 o'clock, P.M., a discussion.

At 3 o'clock, Reports of Committees.

The subjects for discussion are,—

- 1st,—How may Parental Coöperation be best secured?
- 2d,—To what degree does School Life influence Future Character?
- 3d,—General Exercises in School: What shall they be, and how conducted?
- 4th,—Will Material Wealth compensate for a Neglect of Educational Privileges?

Teachers are requested to make preparation for the discussions. Ladies are invited to present essays upon the subjects. Teachers attending the meetings of the Association will be entertained by the citizens of the town.

Free return tickets will be furnished by the Secretary, on the Old Colony and Newport, and South Shore Railroads, good only on the days of the meeting, and to the station from which an advance fare was paid.

DE WITT C. BATES, PRESIDENT.

LEWIS E. NOYES, SECRETARY.

## TO CORRESPONDENTS.

We have in type, but crowded out of the present number, an article on writing "Compositions," in which we have embodied an excellent practical exercise, given at the Educational Meeting, by Mr. L. W. RUSSELL, of Watertown: and we have on file, besides smaller favors, an article on teaching Geography, by the author of the excellent article on teaching Grammar; one entitled, Governed too Much, by a friend whose words always deserve attention; and Letters to Pupils, by an ex-teacher, from whom we are sure our readers will be glad to hear. We have also an article from our valued contributor W. H., and a Report of the Educational Meeting. Thanking all our contributors heartily for their favors, we would respectfully intimate that there is no time when Oliver is not ready for more.